DOCUMENT RESUME

ED 127 405 UD 016 250

AUTHOR Wisenbaker, Joseph M.
TITLE Desegregation and White Flight: A Case Study.
PUB DATE 21 Apr 76
NOTE 25p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, California, April 21, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Case Studies; Caucasian Students; Economic Factors; Educational History; Geographic Location; Geography; *Integration Effects; Integration Studies; Longitudinal Studies; Public Schools; *Racial Balance; *School Integration; *Statistical Analysis; Student Enrollment
IDENTIFIERS *Michigan (Lansing)

ABSTRACT

This paper presents a series of analyses which focus on the geographical and historical context of the racial balance of the public schools of Lansing, Michigan. Based upon the results of these analyses, it is concluded that there is not conclusive evidence pointing toward an excessive alteration in the racial balance of the public schools due to the implementation of a desegregation plan. The inconclusive evidence of such a negative effect must be seen being vastly overshadowed by the ongoing exodus of white students from the central region encompassing Waverly, East Lansing, Lansing Parochial, and Lansing Public schools. The fact that Lansing shows the greatest tendency towards a reduction in the percent of white in its schools is probably due more to the differential impact of economic factors on white and minority groups than for any other reason. The implementation of the cluster desegregation program has certainly not adversely affected the situation from the standpoint of racial balance in Lansing public schools as a whole. In fact, trends from the last four years even offer some hope for a stabilization of the racial compositions of the schools in the near future. (Author/JM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED127405

DESEGREGATION AND WHITE FLIGHT: A CASE STUDY

Joseph Wisenbaker
College of Urban Development
Michigan State University
East Lansing, Michigan

Session Number 10:02

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

UD 016 250

Presented to the 1976 AERA Annual Meeting, April 21, 1976, in San Francisco, California.

It would appear that no other single educational issue in recent years has resulted in more public fervor than that of school desegregation. The polarization of the public with respect to this issue finds its counterpart in the ranks of the social researchers as well. Public forces against adjudicated integration have found support in James Coleman who has transformed his research interests in white flight from public schools into actions of a more political nature. Armed with the results of studies which stand in contradiction to those of Coleman (1975), Thomas Pettigrew and Robert Green (1976), have sought to make the point that there is little or no relationship between court ordered desegregation and white flight.

In spite of the often heated debate on both sides it has become clear that there is a great deal of district-to-district variation in people's response to desegregation programs. Desegregation, no matter what its motivation, does not necessarily result in white flight. A host of other factors uniquely associated with each school district appear to affect the size and direction of people's reaction.

This implies two cautions with respect to analyzing the effects of desegregation on "white flight". The first is that the analysis cannot take place in a vacuum. One must understand the context in which the particular desegregation program was implemented especially with respect to historical changes in school composition. The second is that the data must be handled as a time series with a regression-discontinuity analysis providing the test for the effect. Each district to be examined thus provides an independent test of the impact of desegregation upon "white flight".

The analyses presented in the following paper represent the author's attempt to apply these guidelines to an analysis of the effect of the cluster desegregation program on "white flight" from the Lansing Public Schools. The first section contains the results of analyses involving historical and geographical trends in white and non-white enrollment. The second section deals specifically with the impact of the cluster program on the racial balance of the Lansing schools.

Lansing and White Flight--The Historical and Geographical Context

As has been noted in every "Ethnic Count Report" issued by the Lansing School District since 1973, there has been a decline in the number of white elementary students since at least 1968. In addition, there has been a substantial increase in the enrollment of minority students over the same period. Between June of 1968 and June of 1975 white elementary enrollment has declined from over fifteen thousand to less than twelve thousand--a decrease of more than 25%. Minority enrollment has swelled from just over 3,000 in 1968 to nearly 5,000 in 1975--an increase of 60%. Table 1 presents a detailed year-by-year breakdown of these trends. As can be seen, the decreases in white enrollment have been consistent in every year and the increases in all minority enrollment nearly so. In 1968 the elementary enrollment in Lansing was 84% white; in 1975 this had fallen to 71%. Clearly a transformation of the racial composition of the elementary schools has been taking place.

In an effort to place this trend in a wider perspective, data were obtained from the Michigan Department of Education showing school district enrollment for all public schools in the three county region surrounding Lansing. These data are presented in Appendix 1 of this report. It may be readily noted

Table 1.

Lansing Elementary School Enrollment As of June of Each Year

	1968	1969	1970	1971	1972	1973	1974	1975
White	15787	15621	15236	14877	14136	13282	12557	11676
Non-white	3005	3304	3654	4071	4342	4541	4691	4808
Percent White	84	83	81	79	77	75	73	71

that, while many of the smaller districts have experienced gains in white enrollment, there have also been some districts such as East Lansing, Waverly, Bath and Bellevue which have shown decreases in white enrollment. While the magnitude of these losses is less than 10% in all cases, Lansing has not been alone in experiencing "white flight." A further analysis of this data was carried out by treating the white enrollment for each district as a variable with each year as an observation. Year to year fluctuations in white enrollment for each pair of school districts were correlated. Table 2 contains these correlations. Most notable are the positive correlations involving white enrollment in the Lansing schools with that in Waverly (.92), Mason (.72), Okemos (.71), East Lansing (.68) and Bath (.86)--all districts which lie in close proximity to Lansing. It would therefore appear that the loss of white students from Lansing is a phenomenon more associated with the urban area of which Lansing is the center than uniquely with Lansing itself.

This central decline in white enrollment has been counterbalanced to some extent by the growth of white enrollment in outlying areas--growth that has been highly correlated with the pattern of decline. The districts showing growth for the most part demonstrate strong negative correlations with those in the central region and high positive correlations among themselves.

While white enrollment has demonstrated the above described pattern of fluctuation in the Tri-County area, minority enrollment has shown a somewhat different pattern. Examination of Table 3 which contains the correlations of minority enrollment between pairs of school districts reveals a more pervasive positive trend. The correlations tend to be both large and positive for this variable. Patterns strongly associated with that of Lansing are manifested by DeWitt (.83), Bellevue (.94), Grand Ledge (.83), Maple Valley (.84), East Lansing (.93), Holt (.98), Mason (.89), Okemos (.97), Waverly (.99) and

Table 2.

Correlations of Majority Enrollment

1	1.00																									
2	.95	1.00																								
3	-.91	-.96	1.00																							
4	-.54	-.74	.68	1.00																						
5	.99	.94	-.91	-.60	1.00																					
6	.70	.71	-.77	-.33	.65	1.00																				
7	-.84	-.75	.58	.47	-.81	-.42	1.00																			
8	.34	.43	-.55	-.10	.28	.40	.09	1.00																		
9	.28	.29	-.37	.19	.18	.33	.06	.94	1.00																	
10	.99	.97	-.93	-.54	.96	.77	-.80	.43	.36	1.00																
11	.42	.34	-.38	.26	.32	.33	-.17	.81	.95	.48	1.00															
12	.05	.08	-.02	-.53	.19	-.31	-.21	-.63	-.81	-.07	-.77	1.00														
13	.88	.82	-.77	-.27	.79	.81	-.74	.48	.52	.92	.64	-.40	1.00													
14	.90	.98	-.95	-.77	.91	.59	-.66	.51	.33	.91	.36	.12	.72	1.00												
15	.96	.84	-.78	-.40	.96	.56	-.89	.17	.17	.92	.38	.12	.81	.78	1.00											
16	-.76	-.74	.72	.17	-.66	-.70	.55	-.71	-.76	-.83	-.83	.59	-.94	-.69	-.66	1.00										
17	-.97	-.95	.86	.66	-.96	-.66	.91	-.20	-.12	-.96	-.26	-.16	-.84	-.89	-.93	.68	1.00									
18	.90	.83	-.85	-.25	.84	.86	-.64	.54	.54	.93	.65	-.35	.96	.74	.83	-.90	-.81	1.00								
19	-.10	-.26	.21	.75	-.21	.32	.12	.14	.41	-.03	.48	-.80	.31	-.39	-.06	-.35	.19	.30	1.00							
20	.61	.62	-.62	-.10	.49	.71	-.40	.74	.80	.71	.81	-.73	.88	.56	.48	-.97	-.54	.82	.45	1.00						
21	.91	.91	-.86	.45	.84	.72	-.74	.58	.56	.96	.65	-.30	.96	.86	.82	-.94	-.88	.92	.08	.86	1.00					
22	-.60	-.73	.64	.97	-.66	-.29	.61	.08	.33	-.57	.33	-.65	-.28	-.75	-.51	.12	.72	-.25	.76	-.01	-.43	1.00				
23	-.55	-.67	.51	.90	-.58	-.17	.70	.13	.31	-.53	.27	-.55	-.32	-.68	-.49	.18	.71	-.20	.69	-.08	-.46	.94	1.00			
24	.86	.81	-.84	-.31	.84	.53	-.54	.69	.65	.86	.74	-.21	.77	.83	.81	-.82	-.73	.85	-.03	.68	.86	-.30	-.24	1.00		
25	-.83	-.85	.70	.78	-.85	-.37	.91	.03	.15	-.79	.01	-.45	-.59	-.82	-.82	.42	.92	-.53	.49	-.26	-.69	.87	.90	-.54	1.00	
26	.80	.78	-.61	-.44	.73	.42	-.88	.28	.32	.82	.47	-.13	.83	.73	.77	-.78	-.84	.68	-.04	.69	.88	-.49	-.65	.65	-.80	1.00
27	.84	.88	-.93	-.45	.78	.84	-.49	.73	.64	.90	.63	-.35	.89	.85	.68	-.90	-.76	.92	.10	.86	.92	-.37	-.30	.85	-.51	.65	1.00
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

Table 3.

Correlations of Minority Enrollment

	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23	24	25	26	27
1	1.00																									
2	-.32	1.00																								
3	.20	.09	1.00																							
4	.12	-.48	.67	1.00																						
5	-.16	-.20	-.30	-.48	1.00																					
6	-.28	-.39	-.92	-.45	.46	1.00																				
7	.83	-.57	-.04	.08	.11	.11	1.00																			
8	.45	-.10	-.72	-.65	.22	.53	.40	1.00																		
9	.21	-.55	-.39	-.06	.31	.56	.72	.19	1.00																	
10	.55	-.57	-.49	-.36	.59	.55	.77	.72	.64	1.00																
11	.49	-.36	-.28	-.24	.36	.34	.86	.35	.90	.75	1.00															
12	-.11	.12	-.08	.33	-.90	-.05	-.20	-.11	-.11	-.51	-.30	1.00														
13	-.15	-.30	-.86	-.34	.09	.87	.25	.45	.70	.42	.49	.31	1.00													
15	-.16	-.20	-.30	-.48	1.00	.46	.11	.22	.31	.59	.36	-.90	.09	1.00												
16	.79	-.36	-.04	-.00	-.02	.03	.96	.36	.72	.64	.89	-.07	.29	-.02	1.00											
17	.83	-.36	-.26	-.23	.14	.20	.94	.66	.63	.83	.84	-.20	.33	.14	.93	1.00										
18	.91	-.60	.23	.43	-.26	-.20	.77	.32	.20	.48	.33	.05	-.10	-.26	.66	.68	1.00									
19	.81	.25	.46	-.02	-.25	-.65	.51	.19	-.11	.14	.28	-.12	-.48	-.25	.59	.56	.56	1.00								
20	.85	-.25	-.25	-.23	-.04	.13	.88	.68	.53	.72	.76	-.03	.32	-.04	.92	.98	.69	.63	1.00							
21	.45	-.82	.24	.71	-.16	.01	.69	-.19	.51	.31	.47	.13	.18	-.16	.60	.42	.67	.06	.36	1.00						
22	.73	-.33	-.16	-.35	.52	.16	.82	.60	.50	.89	.78	-.63	.09	.52	.75	.89	.53	.53	.79	.24	1.00					
23	.89	-.44	-.10	-.02	-.01	.08	.97	.52	.62	.74	.80	-.09	.26	-.01	.96	.97	.79	.60	.96	.57	.81	1.00				
24	-.25	-.42	-.69	-.37	.65	.87	.28	.26	.80	.60	.62	-.30	.77	.65	.23	.28	-.25	-.55	.14	.19	.32	.17	1.00			
25	.77	-.34	-.37	-.35	.24	.31	.89	.74	.63	.88	.84	-.26	.39	.24	.88	.99	.60	.49	.96	.33	.90	.93	.36	1.00		
26	.76	-.42	-.11	-.25	.49	.14	.86	.56	.52	.90	.77	-.61	.07	.49	.77	.89	.60	.52	.79	.34	.99	.84	.31	.90	1.00	
27	.39	-.22	-.07	-.17	.35	.15	.76	.10	.84	.57	.96	-.35	.32	.35	.83	.70	.20	.32	.62	.44	.68	.68	.54	.68	.68	1.00

Webberville (.85). While declines in white enrollment have been confined primarily to a region encompassing Lansing, Waverly, Bath and East Lansing, growth in minority enrollment has been a more general phenomenon involving much of the Tri-County area.

As a final point of interest, Table 4 presents enrollment figures for the private and parochial schools in the Lansing area. With the sole exception of the 1970-71 school year during which two Catholic schools were consolidated (one lying outside of the Lansing attendance area), there has been a nearly steady decline in white enrollment over the seven year span in conjunction with a gradual increase in minority enrollment. To the extent to which meaningful comparisons can be made between Lansing public and non-public schools, the trends are identical. The "white flight" phenomenon has manifested itself in the Lansing region as something more akin to actual residential changes than flight to private schools.

Lansing and White Flight--The Impact of the Cluster Program

As a preliminary analysis of the impact of the desegregation program on the racial balance in Lansing public schools, fluctuations in the racial composition of the district were examined for a twelve year period. The data were gathered from two sources--the Michigan Department of Education and Appendix 2 of "School Desegregation and White Flight" by Christine H. Rossell. These are presented as the first part of Figure 1. While there has been considerable variation in the year to year changes in percent white, there has been a consistent drop in percent white in these data consistent with the results of the June counts for elementary schools presented earlier.

Two questions were addressed to this data. The first was whether or not the decline in percent white taking place at the start of the Cluster Plan

Table 4.

Lansing Private and Parochial School Enrollment

	69-70	70-71*	71-72	72-73	73-74	74-75	75-76
Minority	163	170	---	114	160	131	205
Majority	2404	3494	----	2451	2350	2292	2252

* Consolidation of two Catholic schools (one of which was not in the Lansing attendance area) caused this jump in enrollment which was followed by a rapid decline to pre-consolidation level due to overcrowding.

Figure 1.

Analysis of the Impact of the Cluster Plan
on the Racial Balance in the Lansing School District

Changes in the Percent White

Year*	65	66	67	68	69	70	71	72°	73	74	75 †
change in % white from preceding yr.	-.2	-.6	-1.1	-2.2	-.7	-1.8	-1.4	-2.08	-1.7	-1.5	-1.1

* Fall of School Year

° Starting Year for Cluster Plan

† Based upon Preliminary Data from the Michigan Department of Education

Regression equation for predicting change in percent white based on pre-1972 data:

$$\widehat{\text{change}} = -.34 - .20\ (\text{year}) \qquad r^2 = .37$$

Deviation of Observed Change from Estimated Change

Year*	65	66	67	68	69	70	71	72°	73	74	75
deviation of observed from predicted	.34	.14	-.16	-1.06	+.64	-.26	+.34	-.14 (-.01)	(.05)	(-.06)	(.02)

Equation based on post-1971 data:

$$\widehat{\text{change}} = -2.38 + .31\ (\text{year}) \qquad r^2 = .99$$

(1972) was consistent with the pattern established over the years preceding it. The second was whether or not the pattern of decline prior to its imposition was the same as that following it.

To answer the first question the changes in percent white for each year prior to 1972 were regressed on year (1965 being year 1). The estimated regression equation which resulted is presented in the next section of Figure 1. As can be seen in the fairly low r^2, there is quite a bit of variation about the regression line. Nevertheless, the coefficients point toward a pattern involving an increase in the loss of whites from one year to the next. Estimated changes for each year were calculated including projections for 1972. The deviation of these estimates from the actual changes were calculated and are presented as the next part of Figure 1. Simple inspection reveals that the projected decrease in percent white for 1972 deviated no more from its actual value than the best fitting year preceding it. Thus there is no evidence that the decline in 1972 departed from the pattern established over the previous years. In fact, we have every reason to believe that the observed decrease in percent white occuring in 1972 fits as well as possible to that pattern!

To answer the second question a second regression equation was estimated using data from 1972 to 1975 inclusive (1972 being designated as year 1) The results of this regression analysis are presented as the last part of Figure 1 and reveal two interesting changes from the first regression analysis. The first change is that the r^2 has gone from a pre-1972 value of .37 to a post-1972 value of .99 indicating that the trend is now much more definite. The second is that the multiplicative coefficient on year has gone from being negative to being positive indicating that the decrease in percent white is getting smaller as time goes on. This change is in exactly the opposite direction as that predicted by the normal "white flight" hypothesis. If this trend continues, it points toward

a stabilization of the racial balance of the Lansing public schools by 1980.

-Since the implementation of the cluster desegregation program did not involve all Lansing elementary schools, it was possible to carry out a more sensitive analysis comparing year to year fluctuations in the racial balance between cluster and non-cluster schools. The data which provided the basis for the analysis are presented in Appendix 2 of the paper. Due to the fact that Clusters I and II were implemented in the same year, they were combined for the purposes of this and subsequent analyses.

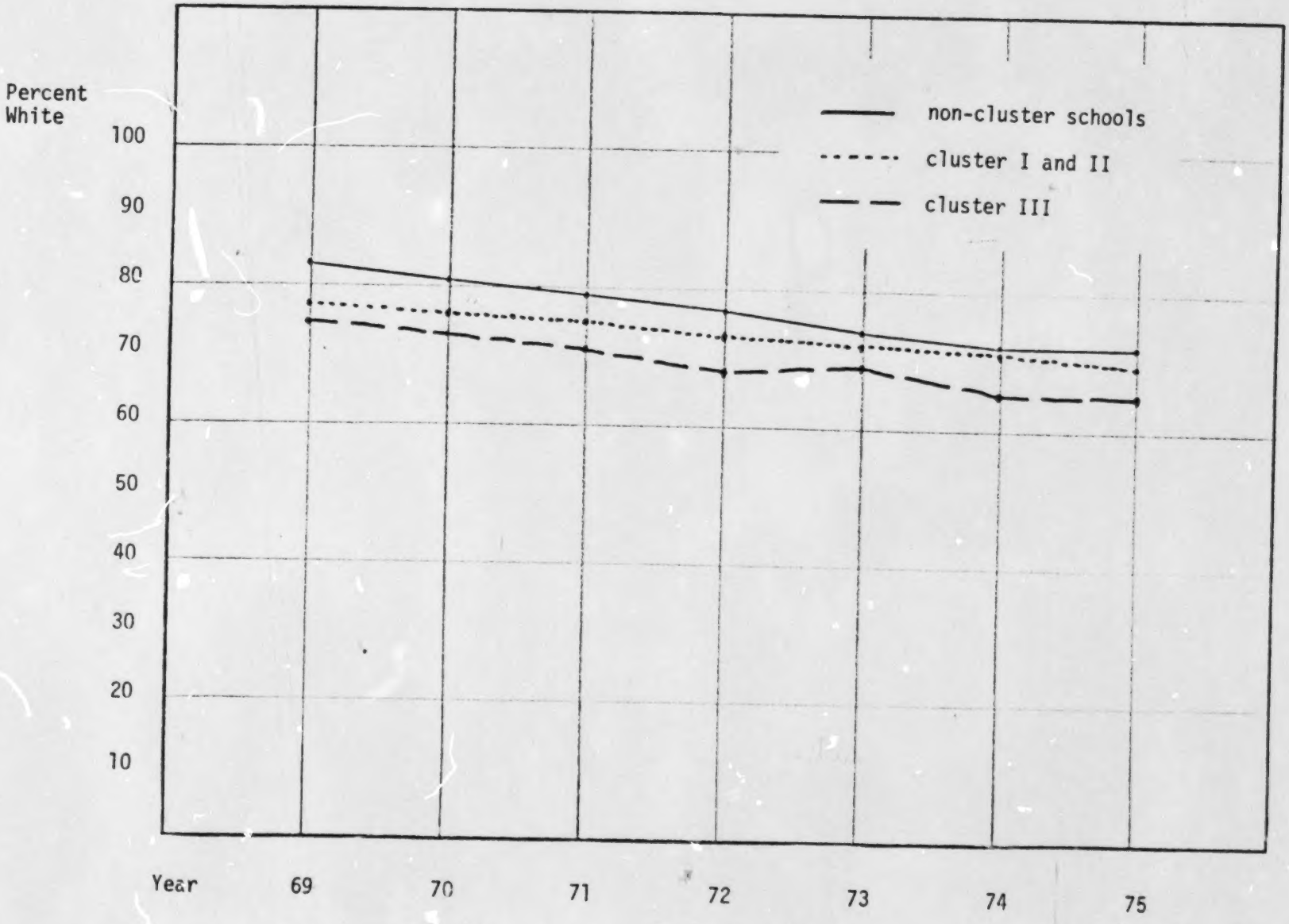
If the cluster plan had a deleterious effect upon the racial balance in the schools, we would expect a greater decline in percent white for each cluster in the year of implementation than in the remainder of the elementary schools. What was actually observed is presented as Figure 2. Examination of this graph reveals that in the year of implementation in Clusters I and II (1972) and Cluster III (1973) the rate of decrease in percent white was actually less than that of the remainder of the elementary system. In fact, Cluster III actually showed a small absolute increase in its percent white in its year of cluster implementation.

In examining other aspects of these data it would appear that there is additional evidence pointing toward a stabilization in the racial composition of Lansing elementary schools. The percent white in Cluster III and non-cluster elementary schools failed to exhibit its expected decline between 1974 and 1975 while it decreased by only two percent in Clusters I and II. If this trend should continue, the racial stabilization predicted by the regression equation estimated on recent school district level data cannot fail to occur.

Thus, this more sensitive analysis not only serves to refute the hypothesis that the cluster plan has accelerated white flight from the elementary

Figure 2.

Percent White in Lansing Elementary Schools 1969-1975



schools but lends added weight to previous optimistic projections relative to the racial balance of the school district as a whole.

Perhaps the most detailed analysis possible in the search for a "white flight" effect corresponding to the implementation of the cluster plan involves an examination of the racial mix of separate cohort groups as they advance through the school system. In this context a cohort group would be considered as composed of students who, if they had been enrolled in the district in first grade, would have been first graders in the same year. Cohort group numbers in the following discussion refer to the grade in which the cohort was enrolled in the 1974-75 school year--the most recent year in which so detailed data were available.

Cohort groups were established and an examination of the percent white in each year was carried out using Cluster I and II, Cluster III and non-cluster schools separately. In order that there be both pre and post desegregation data for each group, only cohorts III, IV, V and VI were examined. The graphs resulting from this procedure are presented as Figures 3 through 6.

Examination of the graphs reveals no trend identifiable with a "white flight" effect due to the cluster plan except for a decrease in percent white in cohort V for Clusters I and II, and Cluster III in their respective years of desegregation. In the first instance there would appear to be sizable year to year fluctuations taking place anyway. In addition, the decrease taking place between 1971 and 1972 was counterbalanced by an increase between 1972 and 1973. In the case of Cluster III the decrease in its percent white corresponds exactly to the decrease experienced by the non-cluster elementary schools at the same time.

It seems safe to conclude that this scant evidence for a "white flight"

Figure 3.

Percent White in Cohort III

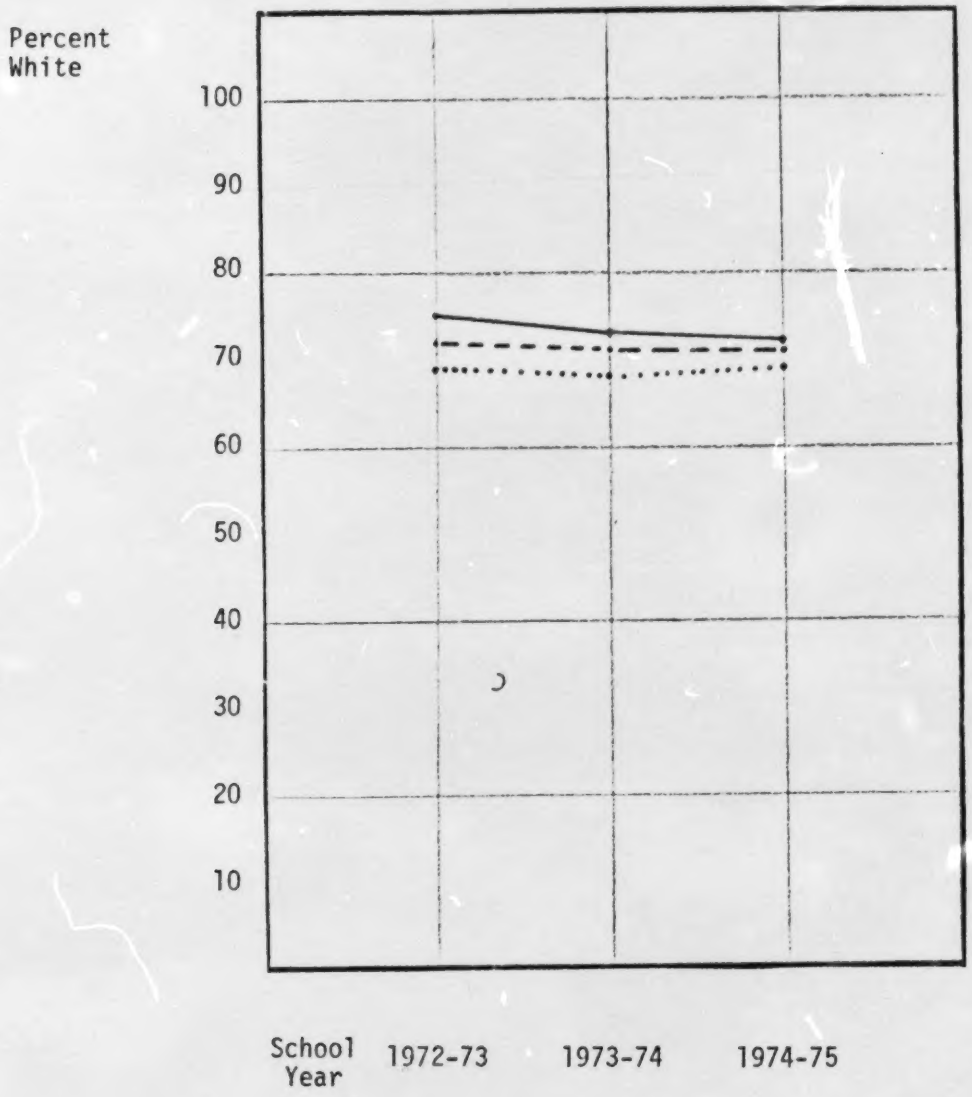
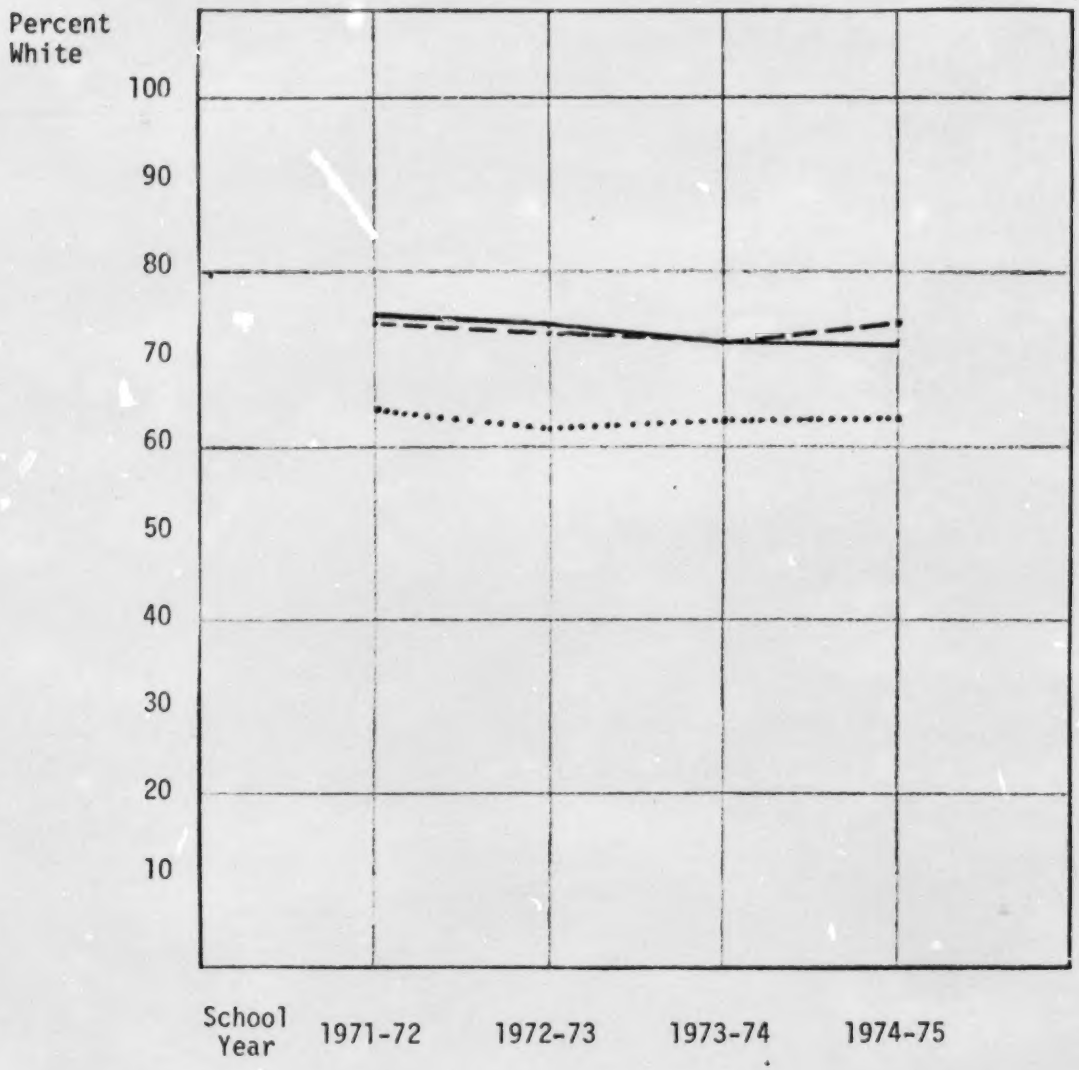


Figure 4.

Percent White in Cohort IV



——— non-cluster schools

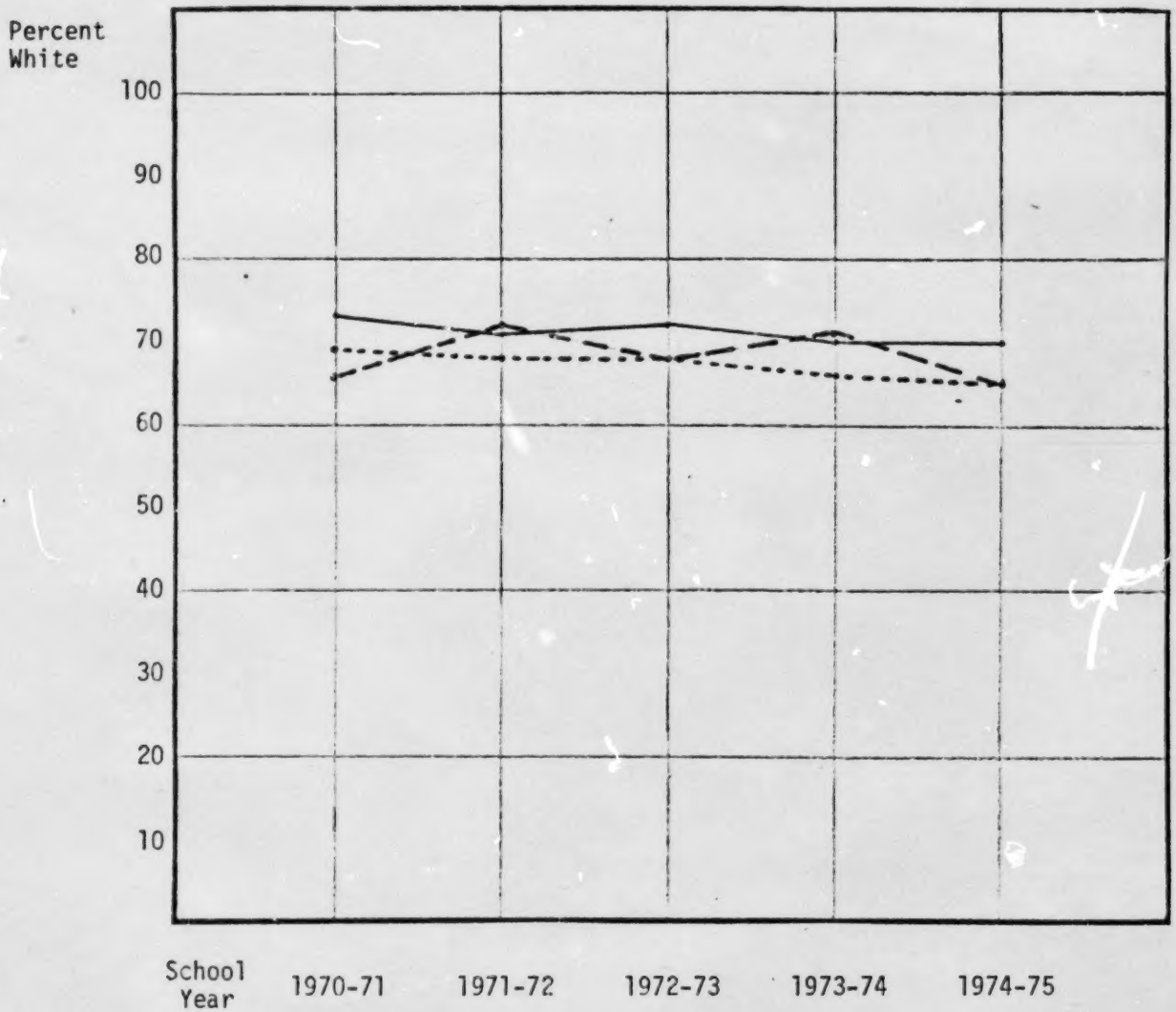
– – – – Cluster I and II schools

..... Cluster III schools

Desegregation was implemented in Clusters I and II in 1972 and in Cluster III in 1973.

Figure 5

Percent White in Cohort V



——— non-cluster schools

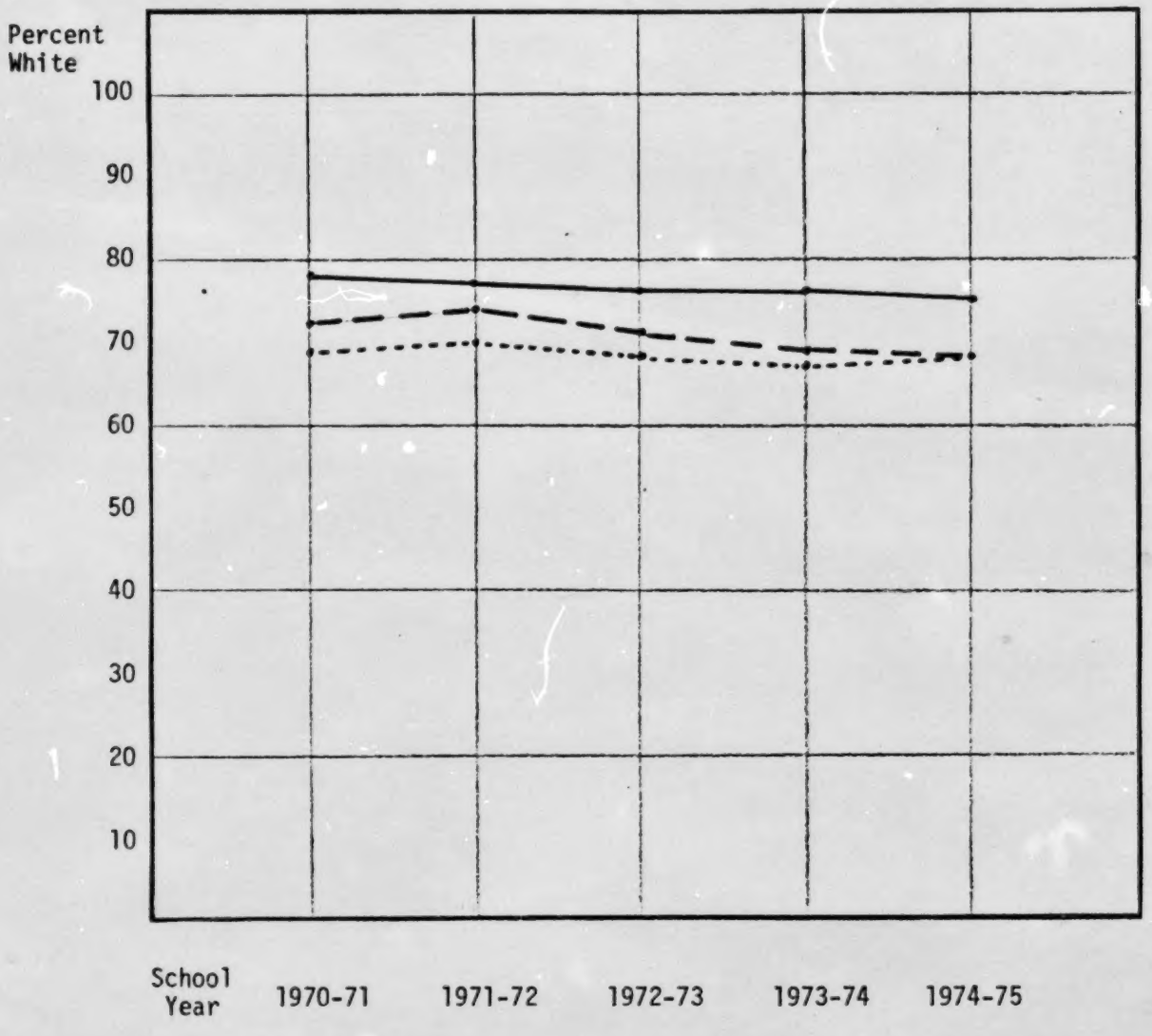
— — — — Cluster I and II schools

-------- Cluster III schools

Desegregation was implemented in Clusters I and II in 1972 and in Cluster III in 1973.

Figure 6.

Percent White in Cohort VI



Desegregation was implemented in Clusters I and II in 1972 and in Cluster III in 1973.

effect attributable to the cluster desegregation plan is insufficient to demonstrate any meaningful impact of the plan on the racial composition of the schools involved when compared to schools which were unaffected.

In summary, the inconslusive evidence of a negative effect of the cluster desegregation plan on the racial balance in Lansing schools must be seen as being vastly overshadowed by the ongoing exodus of white students from the central region encompassing Waverly, East Lansing, Lansing Parochial and Lansing Public Schools. The fact that Lansing shows the greatest tendency towards a reduction in the percent white in its schools is probably due more to the differential impact of economic factors on white and minority groups than for any other reason. The implementation of the cluster desegregation program has certainly not adversely affected the situation from the standpoint of the racial balance in Lansing Public Schools as a whole. In fact, trends from the last four years even offer some hope for a stabilization of the racial composition of the schools in the near future.

BIBLIOGRAPHY

Campbell, Donald T. and Julian C. Stanley. Experimental and Quasi-Experimental Designs for Research. Rand McNally and Company, Inc., New York, 1963.

Coleman, James S., Sara D. Kelly, John A. Moore. Trends in School Segregation, 1968-73, The Urban Institute, Washington, D.C., August, 1975.

Draper, N.R. and H. Smith. Applied Regression Analysis, John Wiley and Sons, Inc., New York, 1966.

Green, Robert L. and Thomas F. Pettigrew. "Urban Desegregation and White Flight: A Reply to Professor Coleman," Phi Delta Kappan, February, 1976.

Jackson, Gregg. "Reanalysis of Coleman's 'Recent Trends in School Integration'," Educational Researcher, Vol. 4, No. 10, November, 1975, pp. 21-25.

Lord, J. Dennis. "School Bussing and White Abandonment of Public Schools," Southeastern Geographer, Vol. 15, No. 2, November, 1975.

Mood, Alexander M. and Franklin S. Graybill. Introduction to the Theory of Statistics, McGraw-Hill Book Company, Inc., New York, 1963.

Pettigrew, Thomas F. and Robert L. Green. "Another View of Urban Desegregation: A Response to Professor Coleman," Harvard Educational Review, Winter, 1976.

Rossell, Christine H. "School Desegregation and White Flight," Political Science Quarterly, Vol. 90, No. 4, Winter 1975-76, pp. 675-695.

School Racial Ethnic Census 1972-73 1973-74, Michigan Department of Education.

APPENDIX 1.

School Enrollment For Majority and Minority Students
in the Tri-County Area 1970-71 to 1975-76

		1970-71	1971-72	1972-73	1973-74	1974-75	1975-76*
DeWitt	Minority	21	23	28	26	29	47
	Majority	1645	1696	1728	1822	1830	1842
Fowler	Minority	0	2	0	0	0	0
	Majority	608	693	722	766	858	864
Bath	Minority	44	37	28	32	32	42
	Majority	1400	1368	1377	1362	1342	1346
Ovid	Minority	62	43	48	43	51	54
	Majority	2428	2428	2433	2446	2383	2374
Pewamo-Westphalia	Minority	0	0	0	1	0	0
	Majority	861	888	888	952	958	971
St. Johns	Minority	111	111	128	127	125	108
	Majority	3934	4148	4161	4270	4511	4120
Bellevue	Minority	6	4	10	15	20	24
	Majority	1410	1475	1378	1330	1338	1312
Charlotte	Minority	47	66	83	74	67	74
	Majority	3769	3943	3922	3874	3882	3899
Eaton Rapids	Minority	90	82	94	113	131	101
	Majority	3345	3497	3513	3470	3631	3448
Grand Ledge	Minority	69	70	84	73	84	88
	Majority	5411	5576	5681	5842	5912	5890
Maple Valley	Minority	8	11	11	21	25	20
	Majority	1897	1961	1981	1978	1936	1953
Olivet	Minority	17	17	19	10	19	15
	Majority	1236	1194	1165	1195	1209	1235
Potterville	Minority	16	18	27	23	31	16
	Majority	790	818	862	875	879	857

		1970-71	1971-72	1972-73	1973-74	1974-75	1975-76*
Oneida	Minority	0	0	0	0	0	0
	Majority	0	4	4	5	8	10
P·xand	Minority	0	0	0	1	0	0
	Majority	12	13	16	27	23	26
East Lansing	Minority	411	431	439	470	537	545
	Majority	4757	4581	4438	4460	4471	4498
Lansing	Minority	6201	6715	7176	7438	7729	8147
	Majority	26358	26282	24930	23471	22518	22409
Dansville	Minority	15	8	19	13	17	30
	Majority	1012	1061	1076	1113	1111	1085
Haslett	Minority	[illegible]	26	21	22	23	31
	Majority	2046	2060	2095	2103	2064	2000
Holt	Minority	96	125	141	137	160	177
	Majority	4200	4321	4424	4368	4390	4336
Leslie	Minority	42	32	38	38	44	43
	Majority	[illegible]	1647	1717	1722	1741	1741
Mason	Minority	52	59	62	78	67	80
	Majority	3503	3531	3532	3529	3441	3418
Okemos	Minority	58	67	98	104	136	163
	Majority	3250	3270	3252	3262	3234	3220
Stockbridge	Minority	80	78	85	95	93	77
	Majority	1952	2043	2033	2081	2047	2090
Waverly	Minority	129	179	220	245	253	280
	Majority	4680	4857	4648	4518	4361	4174
Webberville	Minority	3	5	8	17	11	19
	Majority	794	789	834	826	827	842
Williamston	Minority	11	13	9	19	22	18
	Majority	1752	1845	1852	1859	1879	1869

Data made available by the Michigan Department of Education
* Preliminary Data

Appendix 2.

Fall Elementary School Enrollment for Minority
and Majority Students in Cluster and Non-Cluster Schools

	Cluster Schools			Non-Cluster Schools
	I	II	III	
1969	1274 (341)	1161 (369)	1292 (442)	11853 (2428)
1970	1275 (429)	1114 (338)	1228 (461)	11447 (2691)
1971	1239 (382)	999 (366)	1164 (466)	11256 (2936)
1972	1085* (418)	901* (324)	1081 (508)	10597 (3232)
1973	954 (368)	832 (341)	1069* (485)	9911 (3396)
1974	921 (367)	783 (338)	955 (505)	9458 (3622)
1975	945 (395)	720 (340)	933 (513)	9307 (3644)

* Year in which Cluster Program was implemented.
Minority enrollment is in parentheses.

Appendix 3.

Cohort Formation

School Year					Grade					
1970-71					1	2	3	4	5	6
1971-72				1	2	3	4	5	6	
1972-73			1	2	3	4	5	6		
1973-74		1	2	3	4	5	6			
1974-75	1	2	3	4	5	6				
Cohort Group	I	II	III	IV	V	VI	VII	VIII	IX	X